

The Goodyear Tire & Rubber Company

(A)

Akron, Ohio 44316-0001

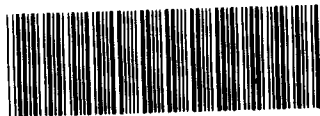


8EHQ-96-13638

INIT 04/26/96

Certified Mail

OPPT Document Processing Center (TS-790)
Attn: Section 8(e) Coordinator
Office of Pollution Prevention and Toxics (OPPT)
U S Environmental Protection Agency
401 M Street S W
Washington, DC 20460



88960000118

April 23, 1996

8EHQ-0596-1363

95 APR 26 AM 11:05

RECEIVED
OPPT ROOM

ORIGINAL

Contains No CBI

Dear Ladies/Gentlemen:

Subject: TSCA Section 8(e) Notice

This submittal does not contain Confidential Business Information.

The Goodyear Tire & Rubber Company is currently sponsoring a study at Springborn Laboratories, Inc. in Wareham, MA to examine the toxic potential of a rubber antioxidant in freshwater green alga, Selenastrum capricornutum. The identity of the test material is as follows:

Chemical Abstract Name: 1,4- Benzenediamine, N, N' - mixed Ph and TolyI derivs.

Chemical Abstract Number: 68953-84-4*

Results from this study were recently communicated to Goodyear by the study director. The findings indicated an inhibition of biomass growth at all concentrations that may represent a substantial risk. Consequently, under the requirements of TSCA Section 8(e), The Goodyear Tire & Rubber Company is providing the EPA with the attached summary of Springborn Laboratories, Inc. report (dated April 15, 1996).

In this study, the test chemical was administered in the culture media to alga for a period of 72 hours. The test chemical levels were measured in culture media and shown to range from 0.0074 mg/L to 0.077 mg/L. Cell counts were performed at 0, 24, 28, and 72 hours following initiation of the study. Rates of alga growth (or inhibition) and culture density were reported.

The results indicated that the test chemical inhibited growth of biomass at all levels. The EC₅₀ (based upon biomass increase inhibition) for 72 hours was calculated to be 0.017 mg/L. The EC₅₀ for growth rate reduction was estimated to be > 0.077 mg/L.

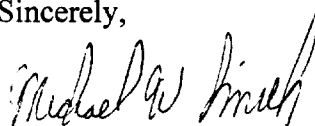
RECEIVED
7/11/96

Because these findings are not yet reported in final form, it is not possible at this time to assign any significance to the results. However, upon completion, this report will be forwarded to EPA.

My address and telephone number are as follows:

The Goodyear Tire & Rubber Company
Department 100D
1144 E. Market Street
Akron, OH 44316-0001
Telephone Number: (330) 796-2362

Sincerely,

A handwritten signature in black ink, appearing to read "Michael W. Smith". The signature is fluid and cursive, with the first name "Michael" being the most prominent.

Michael W. Smith
Section Manager, Chemical Information
Systems & Regulatory Affairs

MWS/jh
s6m4a23
Attachment (1)

SUMMARY**Wingstay® 100 - Toxicity to the Freshwater Green
Alga, *Selenastrum capricornutum***

SPONSOR: The Goodyear Tire & Rubber Company

PROTOCOL TITLE: "Wingstay® 100 - Acute Toxicity Test to the Freshwater Green Alga, *Selenastrum capricornutum*, Following OECD Guideline #201 and EC Guideline L383A - C.3", Springborn Laboratories Protocol #:062095/OECD/EC/430/Wingstay 100 and Protocol Amendment #1 dated 15 February 1996.

REPORT NUMBER: 96-4-6454

STUDY NUMBER: 13537.1095.6124.430

TEST SUBSTANCE: Wingstay® 100, Lot No. 137170393 NP1017, CAS Registry No. 68953-84-4, a gray, flaky substance, was received from Goodyear Research on 7 September 1994. Wingstay® 100 was tested on a whole product basis.

TEST DATES: 18-21 March 1996

TEST ORGANISM: *Selenastrum capricornutum*, inoculum - 3 days since previous transfer, source - Springborn Laboratories' culture

DILUTION WATER: Algal Assay Procedure (AAP) medium

TEST CONDITIONS: 72-hour duration, 24 °C, continuous illumination at 3900 to 4500 lux (360 to 420 footcandles), shaking at 100 rpm

NOMINAL TEST CONCENTRATIONS: 0.016, 0.031, 0.063, 0.13, 0.25 and 0.50 mg/L

MEAN MEASURED CONCENTRATIONS: 0.0074, 0.013, 0.014, 0.027, 0.049 and 0.077 mg/L

EFFECT CRITERION: Inhibition of biomass (area under the growth curve) and average growth rate (μ_{ave}) relative to the performance of the solvent control

Springborn Laboratories, Inc.

RESULTS:

Based on biomass, the 0- to 72-hour E_0C50 value was calculated to be 0.017 mg/L (corresponding 95% confidence limits of 0.0085 to 0.035 mg/L). Since a statistically significant effect on biomass was observed at all treatment levels tested, the E_0C10 value was calculated to provide a conservative estimate of the 96-hour NOEC value. The 72-hour E_0C10 for biomass was determined to be 0.0044 mg/L (95% confidence limits of 0.0018 to 0.0094 mg/L).

Based on average growth rate (μ_{ave}), the 0- to 72-hour E_0C50 was empirically estimated to be >0.077 mg/L, the highest concentration tested. A 38% reduction in growth rate was observed in the 0.077 mg/L solution. The 72-hour NOEC for μ_{ave} for this study was determined to be 0.013 mg/L.

Springborn Laboratories, Inc.

Triage of 8(e) Submissions

Date sent to triage: _____

NON-CAP

CAP

Submission number: 13638

TSCA Inventory: **Y** N D

Study type (circle appropriate):

Group 1 - Gordon Cash (1 copy total)

ECO

AQUATO

Group 2 - Ernie Falke (1 copy total)

ATOX

SBTOX

SEN

w/NEUR

Group 3 - HERD (1 copy each)

STOX

CTOX

EPI

RTOX

GTOX

STOX/ONCO

CTOX/ONCO

IMMUNO

CYTO

NEUR

Other (FATE, EXPO, MET, etc.): _____

Notes:

- ☒ This is the **original** 8(e) submission; refile after triage evaluation.
- ☐ This **original** submission has been **split**; rejoin after triage evaluation.
- ☐ Other:

Photocopies Needed for Triage Evaluation

entire document: 0 1 2 3

front section and CECATS: 0 1 2 3

Initials: _____

Date: _____

CECATS TRIAGE TRACKING DBASE ENTRY FORM

CECATS DATA: Submission # 8EHO: 0596-13638 SEQ. A

TYPE: (INT) SUPP FLWP

SUBMITTER NAME: ~~Goodyear Tire~~
+ Rubber company

INFORMATION REQUESTED: FLWP DATE:

0501 NO INFO REQUESTED

0502 INFO REQUESTED (TECH)

0503 INFO REQUESTED (VOL ACTIONS)

0504 INFO REQUESTED (REPORTING RATIONALE)

DISPOSITION:

0630 REFER TO CHEMICAL SCREENING

0678 CAP NOTICE

VOLUNTARY ACTIONS:

0401 NO ACTION REPORTED

0402 STUDIES PLANNED WITHIN 6 MONTHS

0403 NOTIFICATION OF WORKING WITHIN 6 MONTHS

0404 LABEL/MSDS CHANGES

0405 PROCESS/ANALYSIS CHANGES

0406 APP/USE DISCONTINUED

0407 PRODUCTION DISCONTINUED

0408 CONFIDENTIAL

SUB. DATE: 04/23/96 OTS DATE: 04/26/96 CSRAD DATE: 07/11/96

CHEMICAL NAME:

CAS#

68953-84-4

Misc chemicals

Wingstay 100

INFORMATION TYPE:

P F C

INFORMATION TYPE:

P F C

INFORMATION TYPE:

P F C

| | | | | | | | | |
|------|--------------------------|----------|------|---------------------------|----------|------|-------------------|----------|
| 0201 | ONCO (HUMAN) | 01 02 04 | 0216 | EPICLIN | 01 02 04 | 0241 | IMMUNO (ANIMAL) | 01 02 04 |
| 0202 | ONCO (ANIMAL) | 01 02 04 | 0217 | HUMAN EXPOS (PROD CONTAM) | 01 02 04 | 0242 | IMMUNO (HUMAN) | 01 02 04 |
| 0203 | CELL TRANS (IN VITRO) | 01 02 04 | 0218 | HUMAN EXPOS (ACCIDENTAL) | 01 02 04 | 0243 | CHEM/PHYS PROP | 01 02 04 |
| 0204 | MUTA (IN VITRO) | 01 02 04 | 0219 | HUMAN EXPOS (MONITORING) | 01 02 04 | 0244 | CLASTO (IN VITRO) | 01 02 04 |
| 0205 | MUTA (IN VIVO) | 01 02 04 | 0220 | ECOAQUA TOX | 01 02 04 | 0245 | CLASTO (ANIMAL) | 01 02 04 |
| 0206 | REPRO/TERATO (HUMAN) | 01 02 04 | 0221 | ENV. OCCUR/REL FATE | 01 02 04 | 0246 | CLASTO (HUMAN) | 01 02 04 |
| 0207 | REPRO/TERATO (ANIMAL) | 01 02 04 | 0222 | EMER INCI OF ENV CONTAM | 01 02 04 | 0247 | DNA DAM/REPAIR | 01 02 04 |
| 0208 | NEURO (HUMAN) | 01 02 04 | 0223 | RESPONSE REQEST DELAY | 01 02 04 | 0248 | PROD/USE/PROC | 01 02 04 |
| 0209 | NEURO (ANIMAL) | 01 02 04 | 0224 | PROD/COMP/ID | 01 02 04 | 0251 | MSDS | 01 02 04 |
| 0210 | ACUTE TOX. (HUMAN) | 01 02 04 | 0225 | REPORTING RATIONALE | 01 02 04 | 0259 | OTHER | 01 02 04 |
| 0211 | CHR. TOX. (HUMAN) | 01 02 04 | 0226 | CONFIDENTIAL | 01 02 04 | | | |
| 0212 | ACUTE TOX. (ANIMAL) | 01 02 04 | 0227 | ALLERG (HUMAN) | 01 02 04 | | | |
| 0213 | SUB ACUTE TOX (ANIMAL) | 01 02 04 | 0228 | ALLERG (ANIMAL) | 01 02 04 | | | |
| 0214 | SUB CHRONIC TOX (ANIMAL) | 01 02 04 | 0229 | METAB/PHARMACO (ANIMAL) | 01 02 04 | | | |
| 0215 | CHRONIC TOX (ANIMAL) | 01 02 04 | 0230 | METAB/PHARMACO (HUMAN) | 01 02 04 | | | |

TRIAGE DATA: NON-CBI INVENTORY

ONGOING REVIEW

TOXICOLOGICAL CONCERN:

USE: PRODUCTION:

YES

YES (DROP/REFER)

Algae

LOW

Rubber

CAS SR

NO

NO (CONTINUE)

MED

Antioxidant

IN TRAINING

REFER

HIGH

11/11/96

Tox Concern

ID
13638A

H

| |
|-----|
| ECO |
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| |
| |

COMMENT

AQUATIC TOXICITY TO GREEN ALGAE, *S. CAPRICORNUTUM*, IS OF HIGH CONCERN WITH A 72 HOUR EC50 OF 0.0170 MG/L. (EFFECT-BIOMASS). THE GROWTH RATE EC50 IS GREATER THAN 0.077 MG/L. (SOLID)